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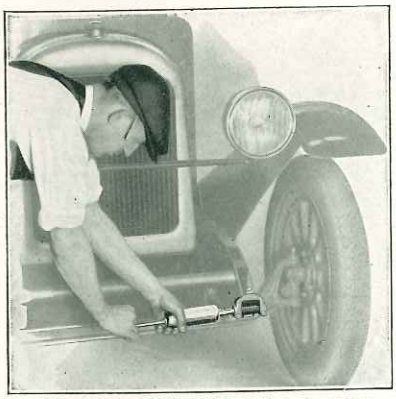
McCURDY & MacWHORTER Inc,
Garage and Accessories
1625 You St., N. W.
Phone: North 7054

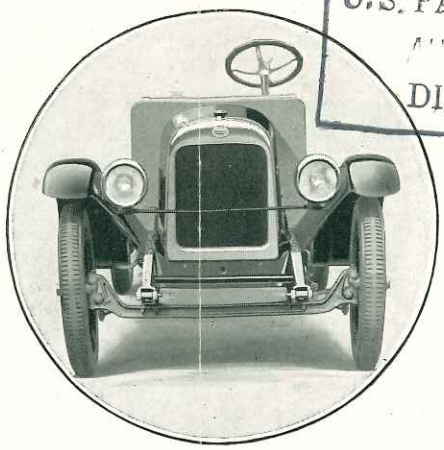
FEDERAL-KNIGHT

Incomparable units of the Federal-Knight Chassis

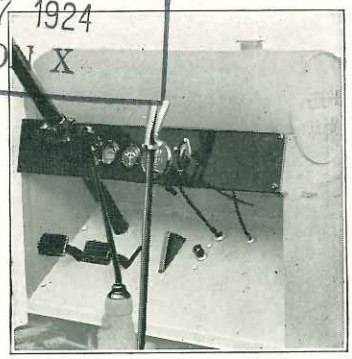
U.S. PATENT OFFICE
AUG 27 1924
DIVISION X



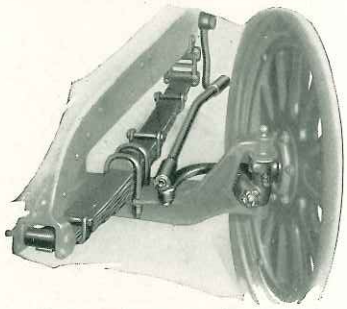
The Federal Knight is lubricated by the Pressure Gun System. Wherever lubrication is needed, a nipple is accessibly placed for quick and easy attachment of the grease gun. This feature is usually found only in higher priced trucks



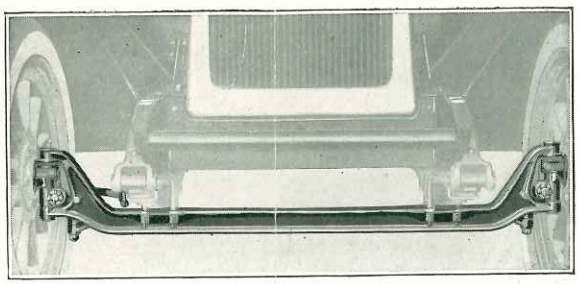
The beauty of the Federal Knight is one of the features that appeals to most truck users. The well-designed radiator—the crown fenders—the symmetrical lines of the hood and dash, all serve to add to its beauty



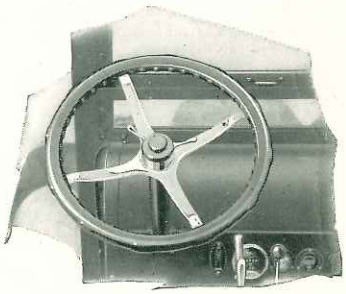
Notice the heavy steel dash construction, heavy steel toe boards, and heavy steel side panels. The steel instrument panel incorporates—switch, ammeter, oil gauge, choke and speedometer.



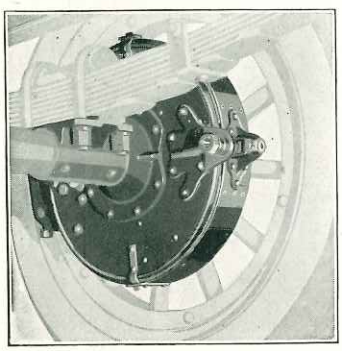
The steering arm, the steering knuckle and all of the vital parts in connection with steering mechanism are built of the most rugged and dependable materials. The long, flexible, strong, front springs is another feature only found on the Federal Knight in the light delivery field.



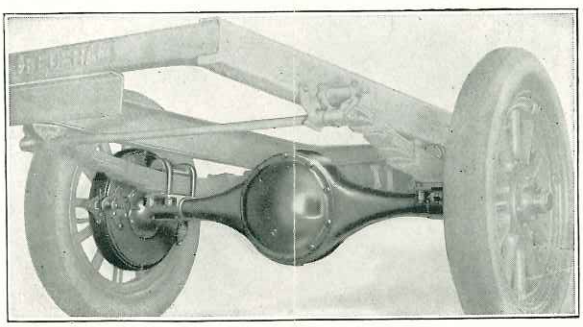
The front axle is a heavy drop forged, I-beam, of alloy steel, equipped with Timken bearings. Your particular attention is drawn to this front axle. We believe it to be the heaviest, and therefore the sturdiest provided by any make of truck of the light, fast delivery type. Federal's front axles have the reputation of outliving the chassis.



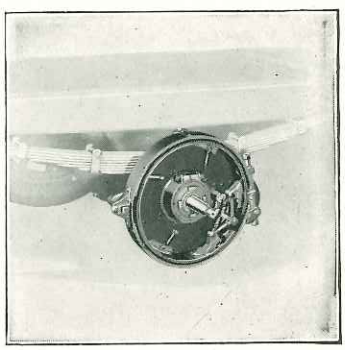
The Federal Knight steering wheel is not only smart in appearance, but is of that dependable Gemmer worm and wheel type. The wheel itself is 18" and has a turning diameter of 43'. This wheel will appeal to every operator.



Notice the large brake drum, which is 2½ x 15½". These brakes are of the external contracting and internal expanding type, and because of their cost of manufacture, are found only in the best of trucks. An abundance of braking surface has been provided in the Federal Knight.



The famous Timken rear axle is used in the Federal Knight. Everyone knows of the reliability and long life built into every Timken Axle. Federal has used them on all of their models for a number of years with exceptional satisfaction. The Federal Knight axle embodies heavy spiral gears, with bevel gear differential, with Timken roller on either end of pinion shaft. The housing is of pressed steel. Wherever a Timken axle is used—there you will find satisfaction.



The rear axle is of semi-floating—fixed hub type, allowing for quick removal of the wheel. With the wheel removed you find a big axle shaft of alloy steel, large tapered roller bearings, and a general mechanism that will bring forth hearty approval from the operator.

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These Bodies mounted on the Federal-Knight Chassis mean Better Transportation

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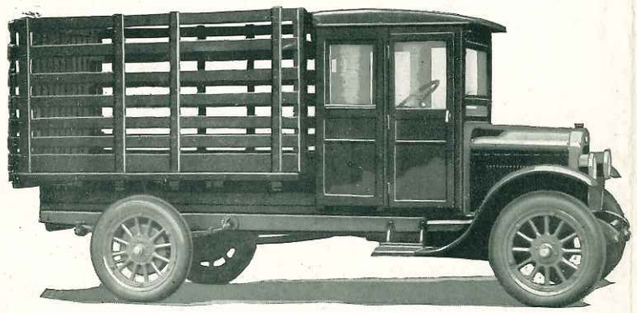
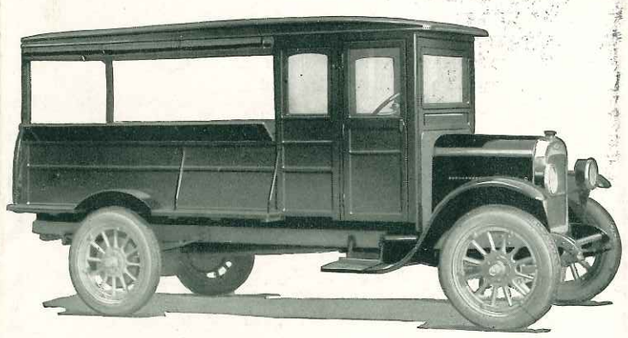


Universal Platform Stock Body

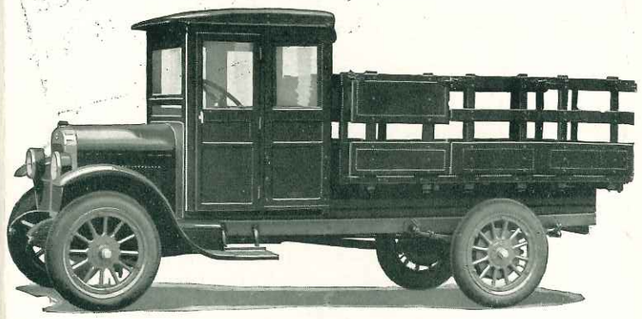
This cattle body has a universal platform. The floor is built of 8″ selected lumber, supported by five sturdy cross members. The platform is protected by six 2″ skid straps running lengthwise with heavy plates at the rear and front ends.

The stock racks are set in 4″ tapered malleable iron pockets, set in flush with the edge of the platform. The stock racks cannot shake or rattle out, but are easily removed when it is desired



High Side Six Post Express Body

With its 20″ sides, this six post Express Body is especially built for service requiring a deep loading space for bulky commodities or merchandise regularly handled in boxes or crates. It can be supplied with either open front or vestibule driver's compartment. Regular equipment includes curtains at sides and rear of body; flare boards; high end gate; combination running boards and fenders.



Universal Platform Stake Body

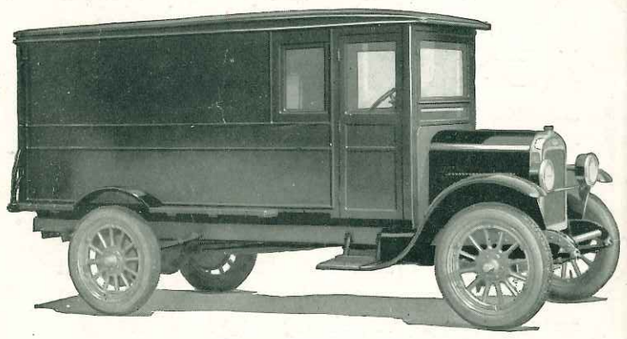
This model designed for general hauling is probably the most universally used and fits the requirements of more businesses than any other body designed.

The floor is built of 8″ selected lumber, supported by five sturdy cross members. The platform is protected by six 2″ skid straps running lengthwise with heavy plates at the rear and front ends. The stakes are set in tapered 4″ malleable iron pockets, set in flush with the edge of the platform.

Open Express Body

This open express body is for service not requiring protection for the load. It can be supplied with either open or vestibule type of driver's compartment. The cab is provided with drop curtain in the rear of the driver and drop curtains at the seat windows where the open type is employed.

Regular equipment includes curtain back of driver's seat, flare boards, drop end gate with chains, combination running boards and fenders.

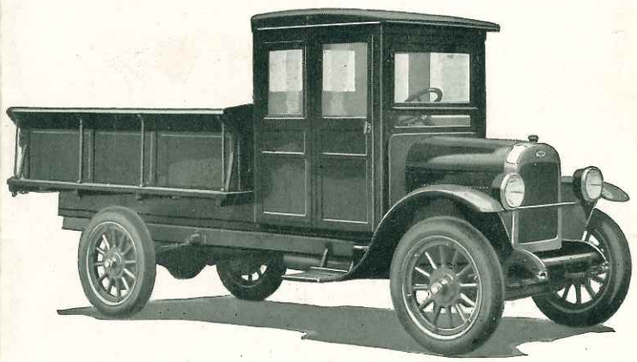


Vestibule-Front Steel Side Panel Body

This is a well-designed, good-appearing panel body for general use. It has a vestibule front steel sides, for all season protection for the driver. A rain-proof, dust-proof body for transporting commodities requiring full protection from the weather.

The vestibule doors open back on either side of the driver and fasten securely when more ventilation is desired.

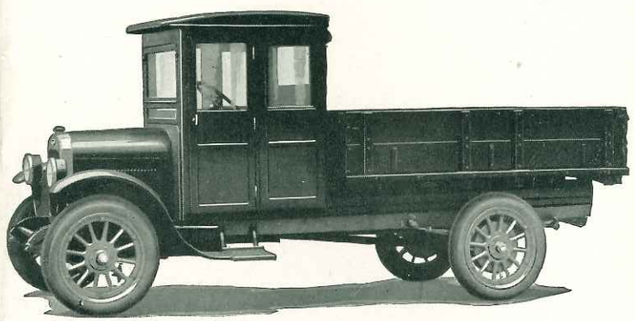
The body is constructed of Armco highest grade heavy sheet steel. The inside is fully slatted from floor to roof.



Special Wide Platform Express Body

This special wide platform express body can be supplied with either an open or closed cab. The flare boards fit down tightly on top of the panels and have four heavy braces on each side to hold them securely.

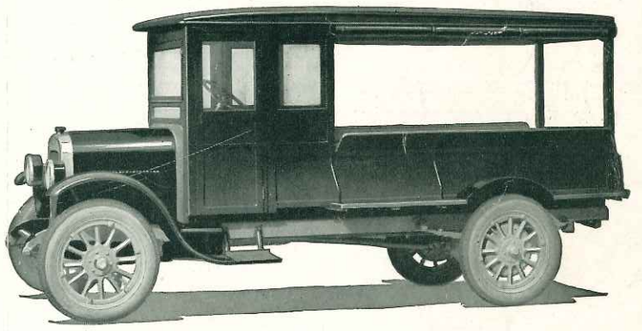
It is equipped with special running boards and makes a decidedly adaptable equipment for packers, butchers and other lines of business having similar hauling requirements.



Karry-All Farm Body

A thoroughly, practical body, sturdily built of selected material and heavily ironed. Tongue and groove lumber is employed to make the floor grain tight, 4″ width being used to minimize the danger of warping or swelling out of shape.

The "Karry-All" body has two panels, the lower one 14″ and the upper one 12″ high.



Six Post Express Body with Top

Above is illustrated a six post express body with top, equipped with drop curtains around the rear compartment—giving ample protection to the load.

It is strongly braced with floor flare boards well protected by heavily ironing.

This body is supplied with either open or vestibule driver's compartment.

NATION WIDE BODY SERVICE

THE body designs shown above can be secured from the Martin-Parry Corporation who have assembly plants in all of the important distributing centers of the country. Because of their extremely large distribution and their efficiency of manufacture, it is possible for them to offer these high-grade commercial bodies at very low prices.

The Martin-Parry Corporation is equipped to render quick and economical repairs to bodies in case of accidental damage.

The Federal Company does not plan at the present time to furnish bodies, but recommend that they be purchased locally where the buyer's personal supervision can be given to the building of the body.

"I have been building quality motor trucks for fourteen years and do not hesitate to recommend to thousands of truck owners who are using Federal Trucks—that the Federal Knight is the crowning achievement of my career.

"I recommend it as a sturdy, rapid delivery unit that embodies long life, economical operation and delivery of goods at less cost than any other unit in its class."

M. S. Duesler

Pres. and General Mgr.
Federal Motor Truck Co.

The Knight Motor *Does* Improve with use. At 5000 Miles it is *Better than New*

THE Federal Motor Truck Company has been building motor trucks for fourteen years, but have never built a light, speedy, delivery unit until the advent of the Federal Knight. The main reason for this has been that they were unable to find an engine that would give long life and the necessary economy. Federal has seen many light delivery trucks fail because they could not stand the severe handling placed upon them by commercial haulage.

Now Federal is offering to the public a sturdy, light delivery truck with the famous Willys Knight Motor built into its chassis, which insures extremely long life, dependability and economy. At last here is a motor that will actually outwear its chassis—will stand the abuse of commercial haulage. A motor that is smooth in its operation, responsive in acceleration, and which has the unusual power to build for itself the name of a great mountain climber and performer wherever power is needed. Federal is now giving to the public in the Federal Knight a motor that embodies all of these essential points, power — flexibility — acceleration— smoothness and quietness of operation.

Everyone has had an opportunity to watch the ever growing popularity of the Willys Knight Motor in the minds of the public. Every year more of them are in use and this is done because they perform satisfactorily.

In the service of the world's largest users of transportation, as well as in the use of the smaller concerns who may use only one or a few trucks, the Federal has always made good. It has never been an experiment. It has since its inception been known as "A Thoroughly Quality Product."

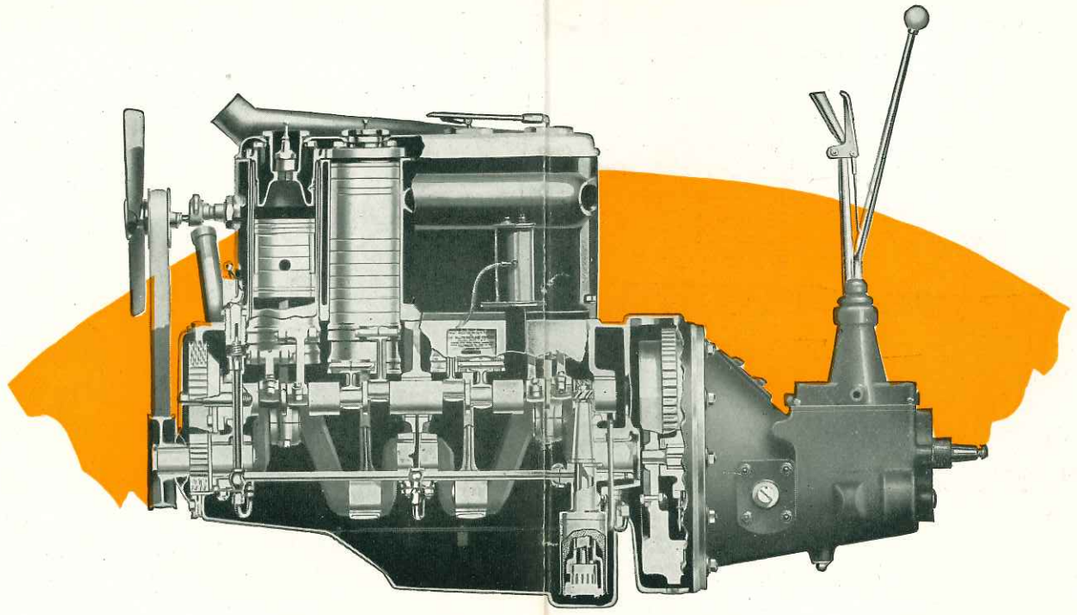
The Federal Knight is simply the latest one of a long line of Federal models, and is destined to out-shadow its predecessors from the standpoint of performance. It is an exceptional accomplishment in engineering, and every unit in it is of exceptional design and quality. For illustration, everyone admits the superiority of the Timken axle, the ability of a Borg & Beck clutch to outlast most others, the record for quality in the years past of Mather Springs, the engineering feasibility of a pressed steel frame, the ability of the Federal Motor Truck Company to build a reliable transmission, and the record of the Willys Knight Motor speaks for itself. Here you have a composite picture of a motor truck that simply because of the fundamental quality of its units, must perform year after year economically and satisfactorily. Behind the Federal Knight is the prestige of a Company that has always maintained a sound, conservative business policy, upon which it has been able to grow to one of the strongest companies in the industry.

Federal, as builders of motor trucks exclusively for over a period of fourteen years, are now giving their owners the latest development in motor truck construction. Since its inception, the Federal Company has been actuated by the highest ideals for the mechanical construction of commercial vehicles. Only the best of materials and the most carefully designing of construction has entered into every Federal Truck. Its reputation for quality and its ability for hard work, year in and year out, is without an equal in the world today.

There is over a $100,000,000 worth of Federals on the highways today and many of the first Federals built have 100,000 to 200,000 miles to their credit, and are still giving satisfactory daily service, and such dependability is the proof of Federal quality.

The Federal Knight is a consistent performer day after day, month after month, and year after year, and is worthy of the name, "Federal."

Making the best motor truck that experience can build and money can purchase has been Federal's object from the beginning, and embodied in the Federal Knight is all of the latest designs and modern features that will make this the most discussed truck in the world.



The Federal Knight is Powered with the Famous Willys Knight Motor

THE secret of the success of the Federal Knight—lies primarily in its marvelous Willys Knight Motor. This motor is internationally known for its ability to perform economically and satisfactorily year after year, and in fact it is recognized as the only type of motor on the market today that actually improves with use Here is the only type of motor known in the field today that will outwear its chassis.

When most motor vehicles leave the factory—their motors are at the highest point of efficiency. The ordinary motor from that point on loses power from the accumulation of carbon and it is necessary to have the carbon removed and the valves ground often to retain the efficiency of the engine. The Willys Knight motor, which is the foundation of the Federal Knight Chassis—on the contrary, actually improves with use. It increases in power —in flexibility and in economy. At five thousand miles—the motor performance is superior to the initial performance when it left the factory.

By reason of its design, the Knight motor will take greater punishments and stand greater strains than any other motor built. Its simplicity and freedom from repairs have given it an international reputation among thousands of owners for permanency of performance.

European engineers are quick to recognize mechanical excellence. The flower of European motordom are now using the Knight motors. Famous motor cars, such as the Daimler of England, Panhard of France, Peugeot of France, Mors of France, Voisin of France, Mercedes of Germany and the Minerva of Belgium—are powered by Knight motors. This is convincing evidence of the unique position that the Knight motor holds among the high-class makers of the most expensive motor vehicles in the world. The motor busses in New York, Detroit and Chicago are powered by Knight motors.

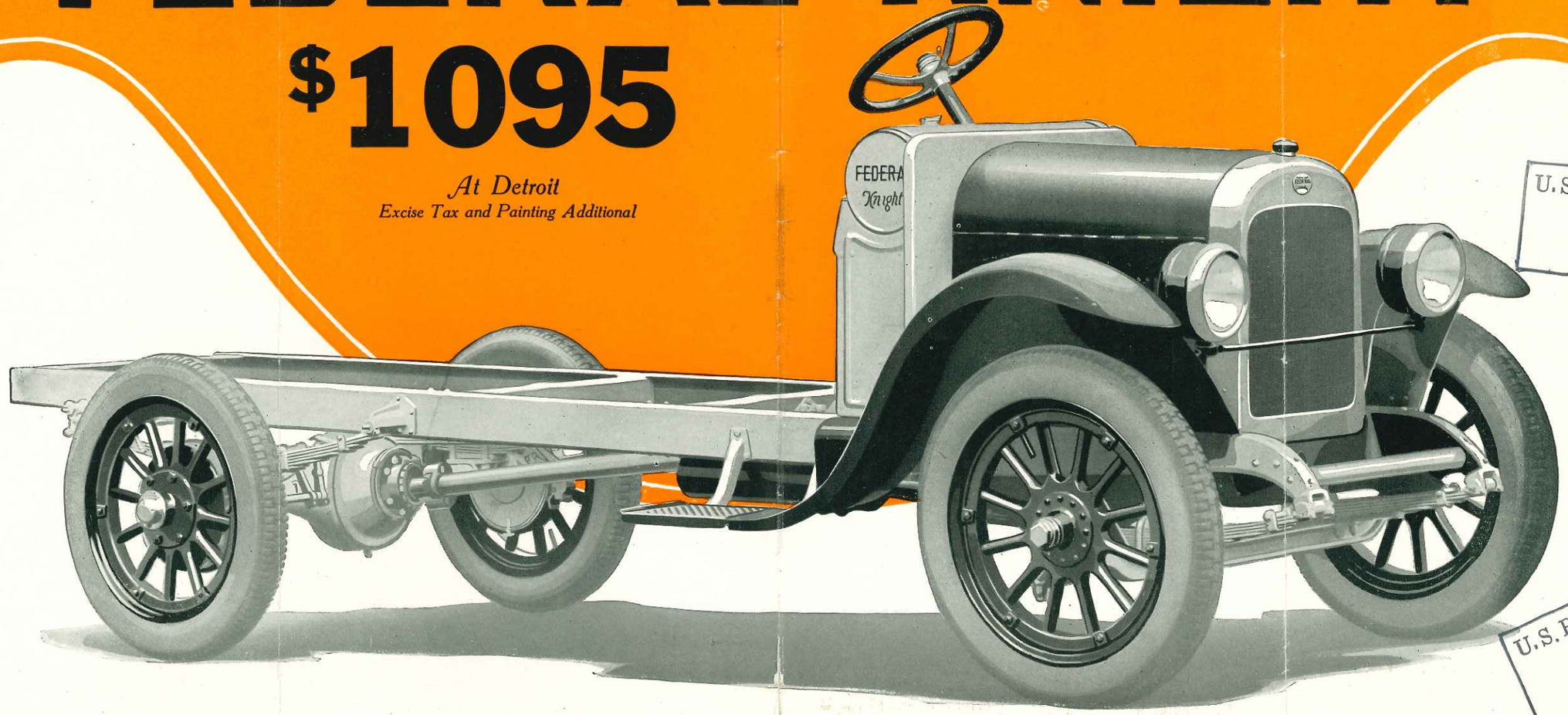
For the first time in the history of the motor truck industry, the Knight motor will be incorporated in a truck chassis by a builder with fourteen years of motor truck building experience. Every unit of the Federal Knight has been built with the quality idea foremost in mind. Comparison of this chassis unit for unit with any other light delivery motor truck on the market today will prove it to be the best truck for the least money in the field.

FEDERAL-KNIGHT

$1095

At Detroit

Excise Tax and Painting Additional



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Mechanical Features

CAPACITY—1500 to 2000 pounds in excess of body weight.
WHEELBASE—124 inches.
FRONT OF DASH—To rear of seat, 47 inches.
LOADING SPACE—Back of seat, 91 inches.
BODY ALLOWANCE—750 pounds.
ENGINE—Knight sleeve valve, 3⅝″ x 4½″, 4 cylinder, removable head, mono bloc; three bearing crankshaft, silent chain for eccentric and generator shaft drive. Force feed lubrication through hollow crankshaft, pressure is throttle controlled; splash to sleeves and pistons; oil capacity, 1½ gallons. Brake horse power, 40, at 2,000 R. P. M. S. A. E. rating, 21.03 H. P. Gasoline mileage, average 14 to 16.
MUFFLER—Pressed steel type, quiet and efficient.
IGNITION—Battery with induction coil and distributor.
CARBURETOR—Zenith; central jet, float feed, automatic.
COOLING SYSTEM—Thermo syphon; capacity 5½ gallons, large water connections.
FAN—16″ diameter.
RADIATOR—Vertical tube type: heavy one-piece pressed steel shell, large capacity.
CLUTCH—Borg & Beck; dry plate; two 10″ asbestos fabric rings completely enclosed in bell housing; adjustable for wear.
TRANSMISSION—Unit with motor, selective, sliding, stub tooth; gears, 3 speeds forward and one reverse, splined main shaft, large annular ball bearings. Pitch of gears 6-8

First speed: 3.65 to 1
Second speed: 1.84 to 1
Third speed: 1 to 1
Reverse: 4.43 to 1

PROPELLER SHAFT—Tubular, large diameter, provided with large metal grease tight joints.
FRONT AXLE—Drop forged, I-beam, alloy steel, Timken bearings, tread 56″.
REAR AXLE—Heavy, spiral bevel gears, with bevel gear differential, Timken roller bearings on either end of pinion shaft. Differential mounted on heavy Timken roller bearings; axle shafts, alloy steel, semi-floating type, large Timken roller bearings. Housing, pressed steel. Ratio, 6 9/11-1; tread 56″
BRAKES—Service brakes, external contracting 15½″ diameter, 2½″ face. Emergency brake, expanding, 15½ x 2½, operating on drums on rear wheels.
SPRINGS—Semi-elliptic type front and rear; front 2¼″ x 38″, rear 2½″ x 50″. Hotchkiss drive.
WHEELS AND RIMS—Wheels, wood, artillery type—12 spoke front and rear; rims demountable; size 32″ x 4½″, one extra rim furnished.
TIRES—32″ x 4½″ pneumatic cord, non-skid, front and rear. OVERSIZE, 33″ x 5″, AT AN EXTRA PRICE.
CONTROL—Accelerator pedal on toe board, gear shift and hand brake levers at center; clutch pedal and service brake pedal at left. Spark and throttle levers and horn button on steering post. Ignition switch, carburetor choke on instrument panel.
STEERING GEAR—Worm and wheel type, irreversible, 18″ hand wheel. Turning diameter 43′.
GASOLINE SYSTEM—Gravity feed, cylindrical tank mounted on dash, 11 gallon capacity.
FRAME—Pressed steel channel, 5″ deep, 5/16″ thick, 30½″ wide at front, 34″ wide at rear. Height of top of frame to ground when loaded, front 24″, rear 27″. Frame brackets and cross members hot riveted.
HOOD—Heavy gauge sheet steel, black enameled, louvres in side, heavy latches.
DASH AND TOE BOARD—All steel construction, heavy gauge.
FENDERS—Crowned type, heavy gauge steel, black enameled, fastened to frame.
CHASSIS LUBRICATION—Alemite.
EQUIPMENT—Oil pressure gauge, jack, tools, speedometer, Alemite grease gun.
ELECTRIC EQUIPMENT—Electric generator, electric starter with Bendix drive, electric motor horn, electric head and tail lamps, ammeter, heavy truck type Exide battery. (We reserve the right to change these specifications without notice.)

Federal Motor Truck Company

DETROIT, MICH.